AN 87-144148 [21] WPIDS
DNC C87-060086
TI Prepn. of new higher unsatd. di-carboxylic acids, or ester(s) - from alkane(s) or mono carboxylic acids or ester(s) by fermentation with block mutant of Candida lipolytica.
DC A60 D16 E17
IN EIERDANZ, H; OTT, K H; SCHINDLER, J; SCHMID, R; VIEHWEG, H; WEISS, A; OTT, K
PA (HENK) HENKEL KGAA
CYC 12
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EP 229252 A 870722 (8729) DE <--
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DE 3685875 G 920806 (9233)
ADT DE 3540834 A DE 85-3540834 851118; JP 62118893 A JP 86-275069 861118; EP 229252 A EP 86-115554 861110; EP 229252 B1 EP 86-115554 861110; DE 3685875 G DE 86-3685875 861110, EP 86-115554 861110
FDT DE 3685875 G Based on EP 229252
PRAI DE 85-3540834 851118
AN 87-144148 [21] WPIDS
AB DE 3540834 A UPAB: 930922
Conversion of linear (i) 10-24C alkanes, opt. with 1-3 internal conjugated or isolated C=C bonds and/or a terminal prim. OH gp., and/or (ii) analogous monocarboxylic acids, opt. with a sec. OH gp., and/or (iii) esters of the analogous monocarboxylic acids with alcohols with functionality, f, of 1-4, and f-22C, under the usual fermentation conditions, opt. in presence of auxiliaries, to give dicarboxylic acids, or, with (iii) dicarboxylic acid monoesters with the same number of C, is carried out in presence of a block mutant of a microorganism of the species Candida lipolytica, with at least partial formation of 1-3 additional C=C bonds.

Hexadecene-3 dicarboxylic acid, hexadecadiene-3, 13 dicarboxylic acid, octadecadiene-3,9 dicarboxylic acid, octadecatriene-3,9,15 dicarboyxlic acid, and 12-hydroxyoctadecadiene -3,9 dicarboxylic acid are claimed as new cpds.

USE/ADVANTAGE - Higher dicarboxylic acids, esp. with functional gps. such as C=C bonds or OH gps., which can be prepd. only with difficulty, can be obtd. Unsatd. dicarboxylic acids are more valuable raw materials than the satd. acids, e.g. by forming derivs. more easily. They are modifiers for polymers, esp. for resins, and raw materials for further synthesis.

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ABEQ EP 229252 B UPAB: 930922

A process for the conversion of unbranched C10-24 alkanes which, if desired, may contain from 1 to 3 internal conjugated or isolated double bonds and/or a terminal primary OH-group and/or the analogous monocarboxylic acid, if desired containing a secondary OH-group, and/or esters of the analogous monocarboxylic acids with alcohols having a functionality of 1 to 4, the alcohols containing up to 22 carbon atoms in the alcohol radical, under standard fermentation conditions, if desired in the presence of auxiliaries, into dicarboxylic acids or - in the case of carboxylic acid esters - into dicarboxylic acid monoesters containing the same number of carbon atoms, characterised in that the conversion is carried out in the presence of a block mutant of Candida lipolytica deposited under the name DSM 3581 and/or mutants thereof capable of forming unsaturated dicarboxylic acids with at least partial formation of 1 to 3 additional CC-double bonds.

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